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Jennifer D. Gaines  
Jennifer Gaines

**PATENT**

Atty. Docket No. 37370-32

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:

GARY WAYNE BAGNALL, ET AL.

Serial No.: 10/759,585

Filed: January 15, 2004

For: LIVE INSECT TRAP

Group Art Unit: 3643

Examiner: Rowan, Kurt C.

**TRANSMITTAL OF APPEAL BRIEF  
(PATENT APPLICATION - 37 C.F.R. § 1.192)**

Mail Stop Appeal Briefs - Patents  
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P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is the Appeal Brief in the above-referenced patent application, with respect to the Notice of Appeal filed on May 3, 2005.

This Appeal Brief is being submitted on behalf of Assignee, Zoo Med Laboratories, Inc., a corporation operating as a small entity.

Serial No. 10/759,585

Pursuant to 37 C.F.R. § 1.17(f) enclosed please find a check in the amount of \$250.00 to cover the filing fee for the Appeal Brief. If any additional fees are due for the filing or the Appeal Brief, the Commissioner is authorized to charge them to Deposit Account No. 13-3735.

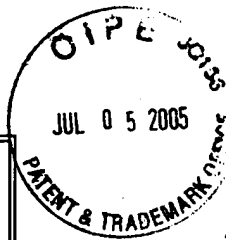
If there are any fees due in connection with the filing of this paper that have not been accounted for in this paper or the accompanying papers, please charge the fees to our Deposit Account No. 13-3735. If an extension of time under 37 C.F.R. 1.136 is required for the filing of this paper and is not accounted for in this paper or the accompanying papers, such an extension is requested and the fee (or any underpayment thereof) should also be charged to our Deposit Account. A duplicate copy of this page is enclosed for that purpose.

Dated: July 1, 2005

Respectfully submitted,  
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**APPEAL BRIEF**

**ON APPEAL TO THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Mail Stop Appeal Brief - Patent  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Dear Sir:

Appellants in the above-captioned patent application appeal the final rejection of claims 1-16 and 18-23 set forth in the Office Action mailed February 3, 2005, a Notice of Appeal having been timely filed on May 3, 2005.

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### **I. REAL PARTY IN INTEREST**

The real party in interest in this application is Zoo Med Laboratories, Inc., pursuant to an assignment recorded on January 15, 2004, at reel 014906, frame 0048.

### **II. RELATED APPEALS, INTERFERENCES AND PROCEEDINGS**

Appellants are not aware of any related appeals, interferences or judicial proceedings.

### **III. STATUS OF CLAIMS**

Claims 1-16 and 18-23 have been finally rejected and are the subject matter of this appeal. In accordance with 37 C.F.R. § 1.192(c)(9), a copy of the claims involved in this appeal is included in Appendix A attached hereto.

### **IV. STATUS OF THE AMENDMENTS**

No amendment has been filed subsequent to the final rejection.

### **V. SUMMARY OF THE INVENTION**

Generally speaking, the present invention is directed to an apparatus for capturing live insects, such as the apparatus shown in Figures 1-4 of the Specification. An upper section of the apparatus houses a light source, and has side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter. The apparatus also includes an enclosed lower section and a funnel between the upper section and the lower section, with the funnel having a wide opening adjacent to the upper section and tapering to a narrow opening within the lower section. Each of

the pending independent claims recites a different aspect of the apparatus, in addition to the foregoing general features of the invention. Examples of these features are provided by referencing the corresponding elements in the embodiment(s) shown in the Figures.

For instance, independent claim 1 recites the feature that the apparatus includes a removable funnel insert disposed within the funnel, restricting the narrow opening of the funnel to a smaller size. Thus, for example, funnel insert 94 and/or 96 shown in Figure 5 of the Specification may be inserted into funnel 90 to reduce the diameter of the lower opening 91 of funnel 90. The use of a removable funnel can allow a user to control the size of the opening, thereby trapping insects of a desired size.

Independent claim 2 recites the feature that the side walls of the upper section have an inner surface that is reflective. Referring to the embodiment shown in Figures 1-4, the interior surfaces of side walls 24 of upper section 20 would be reflective. See, e.g., page 4 lines 4-9. The light reflecting from such side walls, together with the light from the light source, often can confuse an insect that has found its way into the apparatus, decreasing the likelihood that the insect will be able to escape. See, e.g., page 2 lines 13-17.

Independent claim 7 recites the additional feature that the light source (e.g., 21) is an ultraviolet light source. See, e.g., page 4 lines 25-29. Such a light source is believed to be particularly effective in conjunction with the other components of the claimed apparatus.

Independent claim 10 recites the additional feature that the upper section (e.g., 20) has an outer surface that is substantially entirely dark. See, e.g., page 4 lines 3-4.

The contrast provided by using such a dark outer surface can increase the likelihood that an insect will be attracted to the openings (e.g., 26) in the apparatus.

Independent claim 13 recites the additional feature of a cover that attaches to the enclosed lower section when the enclosed lower section is removed from the upper section. See, e.g., cover 66 attached to lower section 60 in Figure 5 (compare with lower section 60 in Figure 4). The use of such a cover can facilitate the transportation of live insects that have been captured in the lower section (e.g., 60) of the apparatus.

Claim 20 recites the additional feature that the openings (e.g., 26) cover approximately 30-40% of the total area that would be provided if the side walls (e.g., 24) were completely closed. See, e.g., page 4 lines 13-16 of the Specification. By providing such a quantity of openings in the upper section of an apparatus according to the present invention, an appropriate balance often can be struck between attracting insects in the first place and ensuring that they do not subsequently escape once they have entered the upper section.

## **VI. GROUNDS OF REJECTION**

Claims 2 and 13 stand rejected under 35 USC § 102(b) over U.S. Patent 5,274,949 (Beaton); and claims 1,3, 4-12, 14-16 and 18-23 stand rejected under § 103(a) over Beaton.

## VII. ARGUMENT

### **Authority Pertaining to Issues on Appeal**

#### Anticipation Rejections Under 35 USC § 102

The requirements for showing anticipation under § 102 are described in M.P.E.P.

§ 2131 as follows:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

With respect to a § 102 rejection, the Federal Circuit also has held that "The identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920, (Fed. Cir. 1989).

In addition, when inherency is asserted extrinsic evidence must be cited to show that the missing descriptive matter is necessarily present in the thing described in the reference:

To establish inherency, the *extrinsic evidence* [emphasis added] "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Id.* at 1269, 20 U.S.P.Q.2d at 1749 (quoting In re Oelrich, 666 F.2d 578, 581, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981)).

In re Robertson, (Fed. Cir. 1999) 169 F.3d 743, 745; 49 U.S.P.Q.2d 1949.

Obviousness Rejections Under 35 USC § 103

The requirements for establishing a prima facie case of a § 103 rejection have been stated as follows.

"a proper analysis under § 103 requires, inter alia, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. [citing In re Dow Chemical Co., 837 F.2d 469, 473, 5 U.S.P.Q.2D 1529, 1531 (Fed. Cir. 1988).] Both the suggestion and the reasonable expectation of success must be found in the prior art, not in the applicant's disclosure."

In re Vaeck, 947 F.2d 488, 493 (Fed. Cir. 1991).

Thus, MPEP § 2142 requires that in order to establish a prima facie case of obviousness, the Examiner must cite prior art references that teach or suggest all of the claim limitations and, if more than one such reference is required to disclose all such limitations, there must be some suggestion or motivation, either in the prior art references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the reference teachings.

**Rejection Under 35 USC § 102(b) Over Beaton**

Claim 2

Independent claim 2 is directed to an apparatus for capturing live insects. An upper section of the apparatus houses a light source, and has side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter. The apparatus also includes an enclosed lower section and a funnel between the upper section and the lower section, with the funnel having a wide opening adjacent to the



upper section and tapering to a narrow opening within the lower section. The side walls of the upper section have an inner surface that is reflective.

The foregoing combination of features is not disclosed by the applied art. In particular, Beaton does not disclose at least the feature of an upper section, as recited above, with side walls having an inner surface that is reflective.

With respect to this feature, the Examiner acknowledges that Beaton only discloses a transparent surface. However, the Examiner goes on to assert:

. . . the inner surface of [Beaton's] side walls is somewhat reflective in that part of the light incident on the surface is reflected and the rest of the light is transmitted. For example, on a water surface, clearly part of the light is reflected and part of the light is transmitted. The amount of each depends on the surface. So even with a transparent surface as disclosed by Beaton, some of the light will be reflected.

Basically, the Examiner is asserting that the inner surface of Beaton's side walls are "reflective" because they reflect some amount of light. By this standard, any actual physical surface could be called "reflective". In other words, the Examiner is defining the term "reflective" such that the term has no meaning at all.

In reality, surfaces frequently are characterized by their dominant optical characteristics, with the understanding that no physical surface is 100% reflective, transmissive or absorptive. Thus, for example, the present Specification notes that the recited reflective surface might be *principally white* or another *light color* (i.e., diffusely reflective) or might be specularly reflective (e.g., mirrored). Page 4 lines 4-9. Given that only pure white could be even theoretically 100% reflective, this language inherently acknowledges that even surfaces that are termed "reflective" will not be perfect reflectors.

While the inner surfaces of Beaton's side walls certainly reflect some amount of light, there is absolutely no indication in Beaton that such reflection is, or is intended to be, more than *de minimis*. Certainly, there is no indication that such surfaces should be characterized as "reflective". As already noted and acknowledged by the Examiner, Beaton himself only characterizes such surfaces as "transparent".

Accordingly, independent claim 2 is believed to be allowable over the applied art.

### Claim 13

Independent claim 13 is directed to an apparatus for capturing live insects. An upper section of the apparatus houses a light source, and has side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter. The apparatus also includes an enclosed lower section and a funnel between the upper section and the lower section, with the funnel having a wide opening adjacent to the upper section and tapering to a narrow opening within the lower section. A provided cover attaches to the enclosed lower section when the enclosed lower section is removed from the upper section.

The foregoing combination of features is not disclosed or suggested by the applied art. In particular, the applied art does not disclose or suggest at least the feature of a cover that attaches to the enclosed lower section when the enclosed lower section is removed from the upper section.

Although the Examiner asserts that Beaton's cover 27 may be attached to Beaton's lower section, there is no indication in Beaton that this is in fact the case. First, it is noted that the present claim recites that the lower section is the portion of the apparatus in which the funnel tapers to a narrow opening. This apparently would

correspond to Beaton's collection jar 24. Appellant is unable to find anything in Beaton that suggests that Beaton's clear plastic disk 27 or any other cover attaches to Beaton's collection jar 24 when collection jar 24 is removed from the upper section of Beaton's apparatus. In addition, the Examiner has cited no portion of Beaton in support of this assertion.

Accordingly, independent claim 13 is believed to be allowable over the applied art.

### **Rejection Under 35 USC § 103(a) Over Beaton**

#### Claim 1

Independent claim 1 is directed to an apparatus for capturing live insects. An upper section of the apparatus houses a light source, and has side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter. The apparatus also includes an enclosed lower section and a funnel between the upper section and the lower section, with the funnel having a wide opening adjacent to the upper section and tapering to a narrow opening within the lower section. A removable funnel insert is disposed within the funnel, restricting the narrow opening of the funnel to a smaller size.

The foregoing combination of features is not disclosed or suggested by the applied art. In particular, the applied art does not disclose or suggest at least the feature of a removable funnel insert disposed within the funnel, restricting the narrow opening of the funnel to a smaller size.

With regard to this feature, the Examiner asserts, "it would have been obvious to employ more than one funnel for multiplied effect." It is not clear what this statement

means. Ordinarily, one funnel is fully sufficient for any given purpose. Absent some express motivation to utilize more than one funnel, one of ordinary skill in the art would not simply stack funnels on top of each other "for multiplied effect". Beaton provides no such motivation, and the Examiner has not even asserted that it does.

Rather, the Examiner asserts, "as applicant argues that the funnel insert allows the size of the opening to be adjustable, it is obvious to make the size of the opening adjustable to catch different sized insects." However, the use of Appellant's own disclosure to provide the requisite motivation to alter a prior-art reference clearly is impermissible, e.g., under the holding of In re Vaeck, *supra*.

As the applied prior art fails to disclose or to suggest the above-referenced feature of the invention, it could not have rendered independent claim 1 obvious. Accordingly, independent claim 1, together with its dependent claims 4-6, 8, 9, 11, 12, 14-16, 18 and 19, is believed to be allowable over the applied art.

#### Claim 7

Independent claim 7 is directed to an apparatus for capturing live insects. An upper section of the apparatus houses a light source, and has side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter. The apparatus also includes an enclosed lower section and a funnel between the upper section and the lower section, with the funnel having a wide opening adjacent to the upper section and tapering to a narrow opening within the lower section. The light source is an ultraviolet light source.

The foregoing combination of features is not disclosed or suggested by the applied art. In particular, the applied art does not disclose or suggest at least the feature of an ultraviolet light source.

With regard to this feature of the invention, the Examiner merely asserts that, "it would have been obvious to employ an old and well known ultraviolet light source for the known insect attracting properties." However, while ultraviolet lights clearly are conventional, there is nothing in the applied art that would have suggested incorporating an ultraviolet light into the apparatus described in Beaton. Without any such motivation to combine prior art features, a *prima facie* case of obviousness under the provisions of MPEP § 2142 cannot be established.

In the current final rejection, the Examiner asserts, "those skilled in the art know that insects are attracted to the wavelengths produced by an ultraviolet light source." However, nothing in the applied art has been cited in support of this assertion, and certainly nothing has been cited to show that ultraviolet light is more attractive to insects than to other types of light, as a general matter. In fact, if that were the case, then presumably Beaton would have mentioned the use of such a light source in his apparatus. However, in view of the current prior-art disclosures, nothing would have suggested replacing Beaton's light source with an ultraviolet light source.

Accordingly, independent claim 7 is believed to be allowable over the applied art.

#### Claim 10

Independent claim 10 is directed to an apparatus for capturing live insects. An upper section of the apparatus houses a light source, and has side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter.

The apparatus also includes an enclosed lower section and a funnel between the upper section and the lower section, with the funnel having a wide opening adjacent to the upper section and tapering to a narrow opening within the lower section. The upper section has an outer surface that is substantially entirely dark.

The foregoing combination of features is not disclosed or suggested by the applied art. In particular, the applied art does not disclose or suggest at least the feature of an upper section, as recited above, having an outer surface that is substantially entirely dark.

The Examiner acknowledges that Beaton does not disclose this feature of the invention. However, the Examiner then goes on to assert, "it would have been obvious to provide a dark color on the outside of the upper section to provide a contrast and the dark color would contrast with the clear of the lower portion and insects would be attracted to this contrast." This asserted motivation is not found anywhere in Beaton (and the Examiner does not even allege that it is), but rather it is merely hindsight based on Appellant's own Specification. Any such arguments are clearly improper in connection with an obviousness rejection. See, e.g., In re Vaeck, *supra*.

Accordingly, independent claim 10 is believed to be allowable over the applied art.

#### Claim 20

Independent claim 20 is directed to an apparatus for capturing live insects. An upper section of the apparatus houses a light source, and has side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter. The apparatus also includes an enclosed lower section and a funnel between the upper

section and the lower section, with the funnel having a wide opening adjacent to the upper section and tapering to a narrow opening within the lower section. The openings cover approximately 30-40% of the total area that would be provided if the side walls were completely closed.

The foregoing combination of features is not disclosed or suggested by the applied art. In particular, the applied art does not disclose or suggest at least the feature of openings in the side walls of an upper section, as recited above, covering approximately 30-40% of the total area that would be provided if the side walls were completely closed.

The Examiner acknowledges that Beaton does not disclose this feature of the invention and that Beaton appears to show a smaller area enclosed by his openings. However, the Examiner then goes on to assert, "the amount of area enclosed by the openings is a matter of design choice to be determined through routine experimentation since no stated problem is solved." No justification has been provided for such an assertion, and there is absolutely no suggestion in Beaton that one should experiment with the sizes of the openings to obtain better results. Without such a suggestion, there would have been no motivation for one of ordinary skill in the art to engage in such "routine experimentation".

Accordingly, independent claim 20 is believed to be allowable over the applied art.

Claim 3

Claim 3 depends from independent claim 2 and recites the further limitation that the inner surface of the side walls is white. This additional feature of the invention is not disclosed or suggested by the applied art.

As to this limitation, the Examiner acknowledges that Beaton's sleeve 21 is clear. However, the Examiner then asserts, "it would have been obvious to employ a white inner surface of the sleeve since the insects are attracted to light colors." The Examiner provides no support for this assertion. In addition, the Examiner does not point to anything in Beaton that would have suggested the desirability of altering the inner surface of the side walls of Beaton's sleeve 21 in any manner to achieve the goal of attracting insects to them. In short, there would have been no motivation to modify Beaton's apparatus as suggested by the Examiner.

For these additional reasons, claim 3 is believed to be allowable over the applied art.

Claim 21

Claim 21 depends from independent claim 20 and recites the further limitation that the light source comprises an ultraviolet light. This additional feature of the invention is not disclosed or suggested by the applied art.

No specific grounds are set forth by the Examiner with respect to this rejection. However, it is assumed that the Examiner is making the same arguments as were made with respect to independent claim 7. Accordingly, for the same reasons set forth above in connection with the discussion of claim 7, those grounds are believed to be inappropriate.



For such additional reasons, claim 21 is believed to be allowable over the applied art.

Claims 22 and 23

Claim 22 depends from independent claim 20 and claim 23 depends from independent claim 7. Both recite the further limitation that the side walls of the upper section have an inner surface that is reflective. This additional feature of the invention is not disclosed or suggested by the applied art.

No specific grounds are set forth by the Examiner with respect to this rejection. However, it is assumed that the Examiner is making the same arguments as were made with respect to independent claim 2. Accordingly, for the same reasons set forth above in connection with the discussion of claim 2, those grounds are believed to be inappropriate.

For these additional reasons, claims 22 and 23 are believed to be allowable over the applied art.

**VIII. CONCLUDING REMARKS**

As Appellants have shown above, for a number of reasons, nothing in the cited references discloses, teaches, or suggests the invention recited by the claims on appeal. Appellants therefore respectfully submit that the claimed invention is patentably distinct over the applied art.

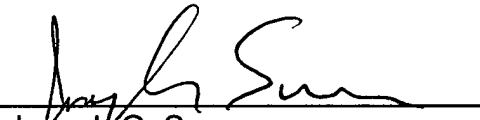
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In view of the foregoing remarks, Appellants respectfully request that the rejection of claims 1-16 and 18-23 be reversed and a Notice of Allowance issued.

Respectfully submitted,

**MITCHELL, SILBERBERG & KNUPP LLP**

Dated: July 1, 2005

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**APPENDIX A**

**Claims on Appeal**

1. An apparatus for capturing live insects comprising:
  - (a) an upper section having side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter;
  - (b) an enclosed lower section;
  - (c) a funnel between the upper section and the enclosed lower section, wherein the funnel has a wide opening adjacent to the upper section and tapers to a narrow opening within the lower section;
  - (d) a light source housed within the upper section; and
  - (e) a removable funnel insert disposed within the funnel, restricting the narrow opening of the funnel to a smaller size.
  
2. An apparatus for capturing live insects comprising:
  - (a) an upper section having side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter;
  - (b) an enclosed lower section;
  - (c) a funnel between the upper section and the enclosed lower section, wherein the funnel has a wide opening adjacent to the upper section and tapers to a narrow opening within the lower section; and
  - (d) a light source housed within the upper section,wherein the side walls of the upper section have an inner surface that is reflective.

3. An apparatus according to claim 2, wherein the inner surface of the side walls is white.
4. An apparatus according to claim 1, wherein the openings in the side walls comprise vertical slots.
5. An apparatus according to claim 1, wherein the wide opening of the funnel forms substantially all of the bottom surface of the upper section when said apparatus is fully assembled.
6. An apparatus according to claim 1, wherein the enclosed lower section screws into the upper section.
7. An apparatus for capturing live insects comprising:
  - (a) an upper section having side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter;
  - (b) an enclosed lower section;
  - (c) a funnel between the upper section and the enclosed lower section, wherein the funnel has a wide opening adjacent to the upper section and tapers to a narrow opening within the lower section; and
  - (d) an ultraviolet light source housed within the upper section.

8. An apparatus according to claim 1, wherein the light source is a fluorescent lamp.
9. An apparatus according to claim 1, further comprising a hanging means attached to the top cover for hanging said apparatus.
10. An apparatus for capturing live insects comprising:
- (a) an upper section having side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter;
  - (b) an enclosed lower section;
  - (c) a funnel between the upper section and the enclosed lower section, wherein the funnel has a wide opening adjacent to the upper section and tapers to a narrow opening within the lower section; and
  - (d) a light source housed within the upper section, wherein the upper section has an outer surface that is substantially entirely dark.
11. An apparatus according to claim 1, wherein the enclosed lower section is removable from the upper section.
12. An apparatus according to claim 11, wherein when the enclosed lower section is removed from the upper section the funnel remains covering the enclosed lower section.

13. An apparatus for capturing live insects comprising:
  - (a) an upper section having side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter;
  - (b) an enclosed lower section;
  - (c) a funnel between the upper section and the enclosed lower section, wherein the funnel has a wide opening adjacent to the upper section and tapers to a narrow opening within the lower section;
  - (d) a light source housed within the upper section; and
  - (e) a cover that attaches to the enclosed lower section when the enclosed lower section is removed from the upper section.
14. An apparatus according to claim 1, wherein the funnel is seated within the enclosed lower section.
15. An apparatus according to claim 1, wherein the lower section is optically transmissive.
16. An apparatus according to claim 1, wherein the funnel is optically transmissive.
17. (Canceled)

18. An apparatus according to claim 1, wherein the only passage between the upper section and the enclosed lower section is through the funnel.

19. An apparatus according to claim 1, wherein the funnel tapers at an angle of at least 45° from horizontal.

20. An apparatus for capturing live insects comprising:

- (a) an upper section having side walls, a top cover, and plural openings in the side walls that are large enough to permit insects to enter;
- (b) an enclosed lower section;
- (c) a funnel between the upper section and the enclosed lower section, wherein the funnel has a wide opening adjacent to the upper section and tapers to a narrow opening within the lower section; and
- (d) a light source housed within the upper section,

wherein the openings cover approximately 30-40% of the total area that would be provided if the side walls were completely closed.

21. An apparatus according to claim 20, wherein the light source comprises an ultraviolet light.

22. An apparatus according to claim 20, wherein the side walls of the upper section have an inner surface that is reflective.

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23. An apparatus according to claim 7, wherein the side walls of the upper section have an inner surface that is reflective.